

The “state-specific TMDL implementation Information” contained herein was originally compiled in June 2006 by Virginia Polytechnic Institute and State University's Biological Systems Engineering Department and the Center for TMDL and Watershed Studies as part of a grant funded by EPA (grant number 83156301). This data/information was updated in September 2008.

State Implementation Information

SUMMARY:

Arizona, California, Delaware, Oregon, and Virginia have state laws requiring development of TMDL implementation plans. An implementation plan is completed separately after the TMDL is approved in California, Delaware, and Virginia; whereas Oregon completes their implementation plans during the development of the TMDL. Of the states having statutes that require implementation plan development, state law can be used to enforce NPS reductions in California and Oregon only.

Formal implementation plans are not required, but are completed based on state guidance in Idaho, Hawaii, Minnesota, and Texas. In Kansas, a brief implementation section is included with each TMDL to comply with the state's consent decree requirements. Kansas' consent decree requires that the TMDL plan and implementation occur within a 10 year time-frame.

Some states, such as Alaska, Hawaii, Florida, South Carolina, Texas, Vermont, Washington, and Wisconsin, do not specifically require implementation plans by state law but do have regulations or some form of enforcement capability to address NPS pollution. Regulations to implement NPS controls do not necessarily have to be in conjunction with TMDL implementation.

The TMDL implementation strategy for each state varies greatly. We defined four categories of IP development to help clarify and summarize our findings. The categories are reflected in columns 2 – 5 of Table 1. The first category (column 2) includes those states that have state laws that require IPs be developed for all TMDLs. The second category includes those states that develop TMDL IPs based on written state guidance. IPs in the second category can be separate documents or can be a part of the TMDL report. The third category includes those states that develop IPs based on an unwritten state initiative or rely on federal guidance. IPs developed in these states are fairly detailed and can be separate documents or a section within the TMDL report. The final category (the fifth column in Table 1) includes those states that have less intensively developed IPs. IPs in this category are generally a brief section in the TMDL report. We've included states in this last category that may have other programs design to improve water quality that the state is using instead of the TMDL process.

The degree to which implementation of NPS pollutant reductions can be enforced by law varies considerably from state to state. Those states that appear to have regulations to address some or all types of NPS pollution are identified in column 6 of Table 1. Most states use incentive-based volunteer programs instead of a regulatory approach to implement NPS pollution control practices. States that fall into the incentive-based category are identified in column 7 of Table 1.

The sections following Table 1 contain brief descriptions of what we've found for each state listed in Table 1. These state-sections discuss TMDL IP development and how NPS pollution controls are implemented.

Table 1 Summary of each state's requirements for TMDL IP development and approach to implementing NPS pollution control practices.

State	TMDL IP* required by state law	TMDL IP required by state guidance	TMDL IP developed by initiative or federal guidance	TMDL implement ation is less intensive	Implementing NPS pollution control practices is regulated	Implementing NPS pollution control practices is voluntary
Alabama				X		
Alaska			X		X	
Arizona	X					X
Arkansas						X
California	X				X	
Colorado				X		X
Connecticut				X		X
Delaware	X					X
Florida			X		X	
Georgia			X			X
Hawaii		X			X	
Idaho		X				X
Illinois			X			X
Indiana						X
Iowa			X			X
Kansas		X				X
Kentucky						X
Louisiana			X			
Maine				X		X
Maryland			X			X
Massachusetts				X		
Michigan				X		
Minnesota		X				X
Mississippi			X			X
Missouri			X			X
Montana			X			
Nebraska				X		X
Nevada						X
New Hampshire				X		X
New Jersey			X			X
New Mexico				X		X
New York				X		
North Carolina						X
North Dakota						X
Ohio				X		X
Oklahoma			X			X
Oregon	X				X	
Pennsylvania				X		X
Rhode Island			X			X
South Carolina				X	X	
South Dakota				X		X
Tennessee			X			X
Texas		X			X	
Utah				X		
Vermont					X	
Virginia	X					X
Washington			X		X	
West Virginia				X		X
Wisconsin					X	
Wyoming						X

* Implementation Plan

States where implementation plans are required by state law:

Arizona

TMDL Implementation Planning

An IP is required for each TMDL report by state statute 49-234.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Arizona Department of Environmental Quality (ADEQ)
 - <http://www.azdeq.gov/index.html> (main page)
 - <http://www.azdeq.gov/environ/water/> (water quality division)
 - <http://www.azdeq.gov/environ/water/assessment/tmdl.html> (TMDL site, accessed September 2008)
 - <http://www.azleg.state.az.us/ArizonaRevisedStatutes.asp?Title=49> (state code)

California

TMDL Implementation Planning

State law requires implementation or basin plans be completed for all approved TMDLs. There are some exceptions where formal implementation plans are not required such as modification to a NPDES permit addresses the impairment (chapter 6 of their guidance document:

http://www.waterboards.ca.gov/tmdl/docs/iw_guidance.pdf).

NPS Regulation

According to state guidance, regulations exist in California that allow for NPS reductions in order to comply with consent decree obligations (California State Water Resources Control Board, 2005).

A NPS implementation fact sheet and the Policy for Implementation and Enforcement of the NPS Pollution Control Program can be found at

http://www.waterboards.ca.gov/water_issues/programs/nps/ . The Porter-Cologne Act regulates NPS implementation.

Reference:

California State Water Resources Control Board. 2005. State of California S.B. 469 TMDL Guidance. A process for addressing impaired waters in California. Sacramento, CA. Available at http://www.waterboards.ca.gov/tmdl/docs/iw_guidance.pdf. (accessed September 2008).

Website Links:

- California State Water Resources Control Board (SWRCB)
 - <http://www.waterboards.ca.gov/> (SWRCB main page)
 - http://www.waterboards.ca.gov/water_issues/programs/tmdl/ (TMDL site, accessed September 2008)

Delaware

TMDL Implementation Planning

TMDL implementation plans are required by state law and are referred to as Pollution Control Strategies. Delaware's Tributary Action Teams are responsible for developing these Pollution Control Strategies to implement approved TMDLs (website:

<http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/>, accessed September 2008).

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Delaware Department of Natural Resources and Environmental Control (DNREC)
 - <http://www.dnrec.delaware.gov/Pages/default.aspx> (agency site)
 - <http://www.dnrec.state.de.us/water2000/index.asp> (Division of Water Resources)
 - <http://www.dnrec.state.de.us/water2000/Sections/Watershed/TMDL/tmdlinfo.htm> (TMDL site, accessed September 2008)

Oregon

TMDL Implementation Planning

The state of Oregon requires that an implementation plan be generated for an impaired watershed. Each implementation plan is referred to as a Water Quality Management Plan and is included in the TMDL report. There are various projects at different stages of implementation.

Link to specific law: http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_042.html

NPS Regulation

Implementation of NPS pollution for TMDLs is encouraged through incentive-based/cost share programs. However if an approved Voluntary Water Quality Farm Plan (VWQFP) does not exist or is not being implemented according to the approved schedule for a site which has been determined to have a water quality standards violation, the operator and/or landowner may be issued a Notice of Noncompliance, and be directed by the Department to remedy the condition under provisions in OAR 603-090-0060 through 603-090-0120 (Oregon Department of Environmental Quality, 2001).

Reference:

Oregon Department of Environmental Quality. 2001. Umatilla River Basin Total Maximum Daily Load (TMDL) and Water Quality Management Plan (WQMP). Available at: <http://www.deq.state.or.us/wq/TMDLs/docs/umatillabasin/umatilla/tmdl.pdf> (accessed September 2008)

Website Links:

- Oregon Department of Environmental Quality (ODEQ)
 - <http://www.deq.state.or.us/> (main page)
 - <http://www.deq.state.or.us/wq/> (department of water quality)
 - <http://www.deq.state.or.us/wq/tmdls/tmdls.htm> (TMDL site, accessed September 2008)

Virginia

TMDL Implementation Planning

Implementation plans are required by Virginia state law. Currently Virginia has completed Implementation plans for 40 segments impaired by bacteria, and are working on implementation plans for 21 additional segments (<http://www.deq.state.va.us/tmdl/implement.html> , accessed September 2008). Implementation of these reports is ongoing and some improvements in water quality have been achieved.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Virginia Department of Environmental Quality
 - <http://www.deq.virginia.gov> (agency site)
 - <http://www.deq.virginia.gov/tmdl> (TMDL site, accessed September 2008)

States where separate or formal implementation plans are required by state guidance:

Hawaii

TMDL Implementation Planning

Separate implementation plans have been completed for each approved TMDL. However, they are not required by state law.

NPS Regulation

According to David Penn with the Hawaii State Department of Health, implementation of NPS pollution is not explicitly included in state law. However, there are general implicit rules to enforce NPS pollution if required (D. Penn, Hawaii State Department of Health, personal communication, 2006, May 22).

Website Links:

- Hawaii State Department of Health (HDOH)
 - <http://www.hawaii.gov/health/> (main page)
 - <http://hawaii.gov/health/environmental/env-planning/wqm/wqm.html/> (Water Quality Management Program & TMDL site, accessed September 2008)

Idaho

TMDL Implementation Planning

Implementation plans are completed in a separate document by the Idaho Soil and Water Conservation districts but are not required by state law. Implementation within various basins is ongoing.

NPS Regulation

Installation of corrective measures to reduce NPS pollution is currently voluntary and incentive based.

Website Links:

- Idaho Department of Environmental Quality (IDEQ)
 - <http://www.deq.state.id.us/> (main page)
 - <http://www.deq.state.id.us/water/> (department of water quality)
 - http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/overview.cfm (TMDL site, accessed September 2008)

Minnesota

TMDL Implementation Planning

The state has a goal of developing an implementation plan within a year after the TMDL has been approved. Currently, implementation plan requirements are set through agency policy guidance, not law. However, a bill that has passed both houses of their state legislature and is in conference committee (<http://www.revisor.leg.state.mn.us/bin/bldbill.php?bill=H0826.4&sessionls84>) does establish several requirements for TMDL implementation plans linked to prioritization and funding

for restoration activities (Jeff Risberg, Minnesota Pollution Control Agency, personal communication, 18 May 2006).

NPS Regulation

In terms of nonpoint source regulatory requirements, feedlots and septic systems are the only sources that are regulated, while runoff from agricultural fields and non-MS4 communities are not.

Website Links:

- Minnesota Pollution Control Agency (MPCA)
 - o <http://www.pca.state.mn.us/> (main page)
 - o <http://www.pca.state.mn.us/water/tmdl/> (TMDL homepage, accessed September 2008)

Texas

TMDL Implementation Planning

Implementation plans are developed for each TMDL and implementation is active in many basins. Since approved TMDLs become part of their Water Quality Management Plan, Texas is obligated to implement measures to achieve the load reductions set out in them. Plans are written in concert with stakeholders in order to increase the prospects of achieving the water quality goal of the TMDL in as timely a fashion as possible (Louanne Jones, Texas Commission on Environmental Quality, Personal communication, 12 May 2006).

NPS Regulation

In Texas, implementation is not directly enforced, but programs are in place where regulatory measures can be used with regard to NPS pollution.

“The Texas Commission on Environmental Quality’s (TCEQ) general authority to protect water quality in the State of Texas is specified in the Texas Water Code. General powers and duties are provided by the provisions of Title 2, Subtitle A, Chapter 5, Subchapter D. The TCEQ derives its specific authority to conduct enforcement actions from TWC, Title 2, Subtitle A, Chapter 7. Specifically, TWC § 7.002 authorizes the Commission to initiate an action to enforce provisions of the water code and to institute legal proceedings to compel compliance with the TWC and with rules, orders, permits or other decisions of the Commission. Responsibilities and authorizations pertaining specifically to water quality protection are contained within Title 2, Subtitle D, Chapter 26 (TCEQ, 2002).”

Reference:

Texas Commission on Environmental Quality and Texas State Soil and Water Conservation Board. 2002. An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed For Segments 1226 and 1255. Available at: <http://www.tceq.state.tx.us/assets/public/implementation/water/tmdl/06bosque/06-bosque-ip.pdf> .

Website Links:

- Texas Commission on Environmental Quality (TCEQ)
 - o <http://www.tceq.state.tx.us/> (main page)
 - o <http://www.tceq.state.tx.us/implementation/water/tmdl/index.html> (TMDL site, accessed September 2008)

Kansas

TMDL Implementation Planning

The 1998 consent decree requires TMDL development to occur within a 10 year schedule. A brief implementation plan is included with each TMDL to address the consent decree.

Kansas is in the beginning phases of implementation and has set a goal for all TMDLs to be implemented within 10 years after they have been approved. The state has also mapped out areas of high priority for implementation:

http://www.kdheks.gov/tmdl/download/Maps_HighPriorityTMDL.pdf .

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Kansas Department of Health and Environment (KDHE)
 - <http://www.kdhe.state.ks.us/index.html> (main page)
 - <http://www.kdhe.state.ks.us/water/> (bureau of water)
 - <http://www.kdhe.state.ks.us/tmdl/> (TMDL site, accessed September 2008)

States where implementation plans have been completed due to “unwritten” initiatives based on recommendations in federal guidance:

Alaska

TMDL Implementation Planning

Implementation plans are included in the most recent of the TMDLs but are not required by state law.

NPS Regulation

Alaska has some special cases where a watershed classification of 'Area Meriting Special Attention (AMSA)' allows specific NPS regulations to be applied - though, not all watersheds can be regulated for NPS.

Website Links:

- Alaska Department of Environmental Conservation (ADEC)
 - <http://www.dec.state.ak.us/index.htm> (main page)
 - <http://www.dec.state.ak.us/water/index.htm> (division of water)
 - http://www.dec.state.ak.us/water/tmdl/tmdl_index.htm (TMDL site, accessed September 2008)

Florida

TMDL Implementation Planning

The State of Florida uses a Basin Management Action Planning process for implementation. Watershed planning within the state is directed by a 2005 Florida Statute (403.067 par. 7) (http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch0403/SEC067.HTM&Title=-%3E2005-%3ECh0403-%3ESection%20067#0403.067). This law gives the state the authority to establish TMDLs. Implementation plans are not required for TMDLs, however this law provides the state with authority to establish and implement basin plans.

NPS Regulation

Initial plans for NPS pollution reductions are voluntary; however, the above law provides regulatory enforcement in that after 5 years of implementation, a report of the water quality improvements within the basin is required. If there is not sufficient water quality improvement at that time, the state has authority for mandatory implementation. NPS pollution in the state is overseen by the

Agricultural Consumer Agency and most of the BMPs they oversee are voluntary (Wayne Magley, Florida Department of Environmental Protection, Personal communication, 15 May 2006).

Website Links:

- Florida Department of Environmental Protection
 - <http://www.dep.state.fl.us/> (agency site)
 - <http://www.dep.state.fl.us/water/default.htm> (Water resources management)
 - <http://www.dep.state.fl.us/water/tmdl/index.htm> (TMDL site, accessed September 2008)

Georgia

TMDL Implementation Planning

Georgia develops separate implementation plans but they are not required by state law. Plans are developed based on federal guidance.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Georgia Department of Natural Resources (DNR)
 - <http://www.gadnr.org/> (main page)
 - <http://www.georgiaepd.org/index.html> (Environmental Protection Division)
 - http://www.gaepd.org/Documents/TMDL_page.html (TMDL site, accessed September 2008)

Illinois

TMDL Implementation Planning

There are no laws specifically requiring implementation plans, but the state does propose steps to implement the TMDLs. Implementation plans have been outlined for each TMDL and utilize the phased or adaptive management approach. Various timelines indicate allowing up to 5 years to secure funding and 5-7 years to implement measures.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Illinois Environmental Protection Agency
 - <http://www.epa.state.il.us/> (main page)
 - <http://www.epa.state.il.us/water/> (division of Water)
 - <http://www.epa.state.il.us/water/tmdl/> (TMDL site, accessed September 2008)

Iowa

TMDL Implementation Planning

Brief implementation plans or strategies are included with the TMDLs. Implementation efforts are ongoing. (<http://www.iowadnr.com/water/watershed/tmdl/index.html>, accessed September 2008).

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Iowa Department of Natural Resources (DNR)
 - <http://www.iowadnr.com/index.html> (main page)
 - <http://www.iowadnr.com/water/watershed/tmdl/index.html> (TMDL and Water Quality Improvement site, accessed September 2008)

Louisiana

TMDL Implementation Planning

Louisiana develops separate implementation plans but they are not required by state law. Plans are developed based on federal guidance.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Louisiana Department of Environmental Quality (LDEQ)
 - <http://www.deq.louisiana.gov/portal/> (main page)
 - <http://www.deq.louisiana.gov/portal/tabid/69/Default.aspx> (Water Quality Assessment Division)
 - <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=130> (TMDL site, accessed September 2008)

Maryland

TMDL Implementation Planning

Brief implementation plans or strategies are included with the TMDLs but are not required by state law. Maryland's 2006 TMDL Implementation Guidance for Local Governments does promote making TMDL implementation a part of routine government functions. This guidance document is available at:

http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/TMDL_implementation_2006_guidance_document.asp

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Maryland Department of Environment (MDE)
 - <http://www.mde.state.md.us/index.asp> (agency site)
 - http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/index_new.asp (TMDL site, accessed September 2008)

Mississippi

TMDL Implementation Planning

TMDL implementation plans will be developed through a Basin Management Approach which involves developing and implementing effective management strategies that will improve state waters.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- The Mississippi Department of Environmental Quality (MDEQ)
 - <http://www.deq.state.ms.us/> (main page)
 - http://www.deq.state.ms.us/MDEQ.nsf/page/SurfaceWater_home?OpenDocument (Office of Pollution Control, Surface Water Division)
 - http://www.deq.state.ms.us/MDEQ.nsf/page/TWB_Total_Maximum_Daily_Load_Section?OpenDocument (TMDL website, accessed September 2008)

Missouri

TMDL Implementation Planning

Implementation plans are included with the TMDL report. To help aid the implementation process, a watershed group has been formed for each TMDL watershed. It does not appear that implementation plans are required by state law.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Missouri Department of Natural Resources (MoDNR)
 - <http://www.dnr.mo.gov/> (main page)
 - <http://www.dnr.mo.gov/env/wpp/tmdl/> (TMDL site, accessed September 2008)

Montana

TMDL Implementation Planning

Implementation actions are to be outlined in the TMDL report per section 75-5-703 of state code. Implementation plans are not required, but detailed implementation actions must be included in each TMDL report.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Montana Department of Environment Quality (MDEQ)
 - <http://www.deq.state.mt.us/index.asp> (main page)
 - <http://www.deq.state.mt.us/wqinfo/TMDL/index.asp> (TMDL site, accessed September 2008)
 - <http://data.opi.state.mt.us/bills/mca/75/5/75-5-703.htm> (state code)

New Jersey

TMDL Implementation Planning

Brief implementation plans or lake restoration plans are included with the TMDLs but are not required by state law.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- State of New Jersey Department of Environmental Protection (NJDEP)
 - <http://www.state.nj.us/dep/> (agency site)

- <http://www.nj.gov/dep/watershedmgt/index.htm> (Division of Watershed Management)
- <http://www.nj.gov/dep/watershedmgt/tmdl.htm> (TMDL site, accessed September, 2008)

Oklahoma

TMDL Implementation Planning

TMDL implementation plans are not required by state law. The Oklahoma TMDL Guidance Manual does suggest that implementation be mentioned in the TMDL report. The extent to which this is done varies for each report.

NPS Pollution

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links

- Oklahoma Department of Environmental Quality
 - <http://www.deq.state.ok.us/> (main page)
 - <http://www.deq.state.ok.us/WQDnew/index.htm> (water quality division)
 - <http://www.deq.state.ok.us/WQDnew/tmdl/index.html> (TMDL site, accessed September 2008)
 - <http://www.deq.state.ok.us/pubs/wqd/TMDLguide.pdf> (OK TMDL guide)

Rhode Island

TMDL Implementation Planning

Brief implementation plans are included in TMDLs and the state takes a phased approach to implementation. State law does not require implementation plans to be completed for each TMDL.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary.

Website Links:

- State of Rhode Island Department of Environmental Management (RIDEM)
 - <http://www.state.ri.us/dem/> (agency site)
 - <http://www.state.ri.us/dem/programs/benviron/water/index.htm> (Office of Water Resources)
 - <http://www.state.ri.us/dem/programs/benviron/water/quality/rest/index.htm> (TMDL site, accessed September 2008).

Tennessee

TMDL Implementation Planning

TMDL implementation plans are not required by state law. Detailed implementation plans are included in the TMDL report as suggested by the federal Clean Water Act.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Tennessee Department of Environment and Conservation (TDEC)

- <http://www.state.tn.us/environment/> (main page)
- <http://www.state.tn.us/environment/wpc/> (Water Pollution Control)
- <http://www.state.tn.us/environment/wpc/tmdl/> (TMDL website, accessed September 2008)

Washington

TMDL Implementation Planning

Implementation plans are included in the TMDL reports. Implementation is at various stages and some success has been achieved such as for the Nooksack fecal coliform TMDL and Yakima River (Lower) DDT TMDLs.

NPS Regulation

Washington State addresses NPS pollution mainly through raising awareness, encouraging community action, providing funding, and supporting local decision makers. Washington has a law (RCW9048) that states that no person is allowed to pollute the waters, which provides some basis for enforcement of NPS implementation.

Website Links:

- Washington State Department of Ecology (WDE)
 - <http://www.ecy.wa.gov/ecyhome.html> (main page)
 - <http://www.ecy.wa.gov/programs/wq/wqhome.html> (water quality program)
 - <http://www.ecy.wa.gov/programs/wq/tmdl/> (TMDL site, accessed September 2008)

States with less intensive or formalized implementation activity:

Alabama

TMDL Implementation Planning

Brief implementation plans are included with the TMDL. These plans are not required by state law.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Alabama Department of Environmental Management (ADEM)
 - <http://www.adem.state.al.us/WaterDivision/WQuality/TMDL/WQTMDLInfo.htm> (agency site)
 - <http://www.adem.state.al.us/WaterDivision/WQuality/TMDL/WQTMDLInfo.htm> (TMDL site, accessed September 2008)

Colorado

TMDL Implementation Planning

Brief implementation plans or strategies are included with the TMDLs.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Colorado Department of Public Health and Environment (CDPHE)

- <http://www.cdphe.state.co.us/> (main page)
- <http://www.cdphe.state.co.us/wq/index.html> (Water Quality Control Division)
- <http://www.cdphe.state.co.us/wq/Assessment/TMDL/tmdlmain.html> (TMDL site, accessed September 2008)

Connecticut

TMDL Implementation Planning

Brief implementation plans or strategies are included with the TMDLs.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Connecticut Department of Environmental Protection (CDEP)
 - <http://www.ct.gov/dep/site/default.asp> (main page)
 - http://www.ct.gov/dep/cwp/view.asp?a=2719&q=325604&depNav_GID=1654 (TMDL site, accessed September 2008)

Maine

TMDL Implementation Planning

Implementation plans or Phosphorus Control Action Plans for Lakes are included with the TMDL; however, these plans are not required by state law.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Maine Department of Environmental Protection (MDEP)
 - <http://www.maine.gov/dep/index.shtml> (agency site)
 - <http://www.maine.gov/dep/blwq/> (Bureau of Land & Water Quality)
 - <http://www.maine.gov/dep/blwq/docmonitoring/impairedwaters/index.htm> (TMDL site, accessed September 2008).

Massachusetts

TMDL Implementation Planning

A brief implementation plan or approach is included with the TMDL report.

Website Links:

- Massachusetts Department of Environmental Protection (DEP)
 - <http://www.mass.gov/dep/> (agency site)
 - <http://mass.gov/dep/water/resources/tmdls.htm> (TMDL site, accessed September 2008).

Michigan

TMDL Implementation Planning

Some implementation plans have been initiated or completed by local watershed groups. Implementation plans are not required by state law.

Website Links:

- Michigan Department of Environmental Quality (MDEQ)
 - <http://www.michigan.gov/deg> (main page)
 - http://www.michigan.gov/deg/0,1607,7-135-3313_3686_3728-12464--,00.html (TMDL homepage, accessed September 2008)

Nebraska

TMDL Implementation Planning

Watershed management plans within the 319 nonpoint source pollution program are completed for impaired waters in lieu of formal implementation plans. Implementation plans are not required by state law (Nebraska Department of Environmental Quality, Personal communication, 31 May 2006).

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Nebraska Department of Environmental Quality (NDEQ)
 - <http://www.deg.state.ne.us/> (main page)
 - <http://www.deg.state.ne.us/SurfaceW.nsf/pages/TMDL> (TMDL site, accessed September 2008)

New Hampshire

TMDL Implementation Planning

Brief implementation plans are included in the TMDLs.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- New Hampshire Department of Environmental Services (NHDES),
 - <http://www.des.state.nh.us/> (agency site)
 - <http://www.des.state.nh.us/wmb> (Watershed Management Bureau)
 - <http://www.des.state.nh.us/wmb/tmdl/index.html> (TMDL site, accessed September 2008).

New Mexico

TMDL Implementation Planning

Brief implementation approaches are included in the TMDLs. A Watershed Restoration Action Strategy (WRAS) is developed for each impaired basin in the state. These plans provide a very detailed approach to improving water quality in the watershed, but make little reference to the TMDL.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- New Mexico Environment Department (NMED)
 - <http://www.nmenv.state.nm.us/index2.htm> (main page)
 - <http://www.nmenv.state.nm.us/swqb/index.html> (Surface water quality bureau)

- <http://www.nmenv.state.nm.us/swqb/tmdlids.html> (TMDL site, accessed September 2008)

New York

TMDL Implementation Planning

Implementation is discussed within the TMDL reports. Additional Phase II implementation plans have been completed for the New York City Watershed.

NPS Regulation

No information was found regarding how NPS pollution is addressed in New York.

Website Links:

- New York State Department of Environmental Conservation (NYSDEC)
 - <http://www.dec.state.ny.us/> (agency site)
 - <http://www.dec.state.ny.us/website/dow/index.html> (Division of Water)
 - <http://www.dec.state.ny.us/website/dow/tmdl.html> (TMDL site, accessed September 2008).

Ohio

TMDL Implementation Planning

Implementation plans are not required by state law and implementation is discussed briefly in each TMDL report. State rules to meet the Great Lake initiative provide the state a basis for requiring implementation of TMDLs (Trinka Mount, OEPA, personal communication, 31 May 2006).

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links:

- Ohio Environment Protection Agency (OEPA)
 - <http://www.epa.state.oh.us/index.html> (main page)
 - <http://www.epa.state.oh.us/dsw/> (Division of Surface Water)
 - <http://www.epa.state.oh.us/dsw/tmdl/> (TMDL homepage, accessed September 2008)

Pennsylvania

TMDL Implementation Planning

Watershed restoration strategies for impaired basins are completed in part for the NPS management program. These restoration plans address what BMPs are expected to meet water quality standards. These plans do not directly discuss TMDL loads. Plans are available at:

<http://www.depweb.state.pa.us/watershedmgmt/cwp/view.asp?a=1430&q=486118> .

Implementation efforts are ongoing.

NPS Regulation

Implementation of corrective measures for NPS pollution appears to be voluntary at this time.

Website Links:

- Pennsylvania Department of Environmental Protection
 - <http://www.dep.state.pa.us/> (agency site)

- o http://www.dep.state.pa.us/watermanagement_apps/tmdl/default.asp (TMDL site, accessed September 2008)
- Susquehanna River Basin Commission (SRBC) <http://www.srbcc.net/>

South Carolina

TMDL Implementation Planning

Implementation plans are not required by state law; however, implementation of TMDLs is ongoing. Implementation guidelines and approach are available at:

<http://www.scdhec.gov/environment/water/npsplan.htm> . Brief implementation planning recommendations are included in the TMDLs.

NPS Regulation

According to the guidance document, the state has regulatory programs that can and will be used to cause implementation of NPS load reductions where recommended (SCDHEC, 2008).

Reference:

South Carolina Department of Health and Environmental Control. Implementation Plan for Achieving Total Maximum Daily Load Reductions From Nonpoint Sources for the State of South Carolina. Available at <http://www.scdhec.gov/environment/water/npsplan.htm> . (accessed September 2008).

Website Links:

- South Carolina Department of Health and Environmental Control (DHEC)
 - o <http://www.scdhec.gov/> (main page)
 - o <http://www.scdhec.net/eqc/water/> (Bureau of Water)
 - o <http://www.scdhec.gov/environment/water/tmdl/> (TMDL site, accessed September 2008)

South Dakota

TMDL Implementation Planning

TMDL implementation plans are not required by state law. Implementation goals are briefly described in the TMDL report, per federal guidance.

NPS Regulation

Implementation of corrective measures for NPS pollution is voluntary at this time.

Website Links

- South Dakota Department of Environment & Natural Resources (SDDENR)
 - o <http://www.state.sd.us/denr/denr.html> (main page)
 - o <http://www.state.sd.us/denr/DFTA/WatershedProtection/wpprg.htm> (Watershed Protection)
 - o <http://www.state.sd.us/denr/DFTA/WatershedProtection/tmdl.htm> (TMDL site, accessed September 2008)

Utah

TMDL Implementation Planning

Implementation plans have been included with some TMDLs, including the Virgin River Watershed.

NPS Regulation

No information was found regarding how NPS pollution is addressed in Utah.

Website Links:

- Utah Department of Environmental Quality (UDEQ)
 - <http://www.deq.utah.gov/> (main page)
 - <http://www.waterquality.utah.gov/> (Division of Water Quality)
 - <http://www.waterquality.utah.gov/TMDL/index.htm> (TMDL site, accessed September 2008)

West Virginia

TMDL Implementation Planning

Implementation is ongoing within some watersheds. West Virginia has a section in the TMDL report that describes which groups are responsible for implementing TMDLs once they are approved and the general approach that is taken to implement TMDLs, but no formal plan is completed.

NPS Regulation

NPS pollution is addressed through program initiatives that are based upon education, technical assistance (from 303(d) funding), financial incentives, and demonstration projects.

Website Links:

- West Virginia Department of Environmental Protection (WVDEP)
 - <http://www.wvdep.org/> (agency site)
 - <http://www.wvdep.org/item.cfm?ssid=11> (Division of Water and Waste Management)
 - <http://www.wvdep.org/item.cfm?ssid=11&ss1id=930> (TMDL site, accessed September 2008)

States not addressed above where NPS pollution practices are regulated:

Wisconsin

TMDL Implementation Planning

Implementation plans are not required by state law.

NPS Regulation

NPS pollution practices are regulated by state law. Wisconsin must provide reasonable assurance that nonpoint sources will meet their allocated amount of reductions as stated in the TMDL. Possible methods include developing nonpoint source pollution plans or implementing best management plans (BMPs) in the watershed.

According to the reasonable assurance within the TMDL, implementation of TMDLs for NPS pollution is enforceable within existing laws and regulatory performance standards.

Website Links:

- Wisconsin Department of Natural Resources (WDNR)
 - <http://www.dnr.state.wi.us/> (main page)
 - <http://www.dnr.state.wi.us/org/water/wm/wqs/303d/> (TMDL homepage, accessed September 2008)

Vermont

TMDL Implementation Planning

TMDL IPs are not required by state law. In each TMDL report, reference is made to Vermont's Basin Planning Process. This process is required by state law and involves the development of a Basin Plan for each basin in the state. Vermont Water Quality Standards define Basin Plans as:

"Basin plans establish a strategy to improve or restore waters and to ensure full support of uses. Basin plans serve as the guide, consistent with applicable state and federal law for how various sources of pollution within each basin will be managed in order to achieve compliance with the Vermont Water Quality Standards and the Vermont water quality policy."

NPS Pollution

Some rules and regulations do exist that require farming practices to prevent and reduce pollution to streams and waters. These rules apply to all farming operations, regardless of type and size (Lake Champlain Phosphorus TMDL, see link below)

Website Links

- Vermont Department of Environmental Conservation (VTDEC)
 - <http://www.anr.state.vt.us/dec/dec.htm> (main page)
 - http://www.anr.state.vt.us/dec/waterq/planning/htm/pl_tmdl.htm (TMDL site, accessed September 2008)
 - http://www.anr.state.vt.us/dec/waterq/planning/htm/pl_basinplan.htm (Basin Planning site)
 - http://www.anr.state.vt.us/dec/waterq/lakes/htm/lp_phosphorus.htm (Lake Champlain Phosphorus TMDL)